

Claims

What is claimed is:

Suba17

1. A method for processing video, the method comprising the steps of:
determining an association between a first video segment including a particular feature
5 and at least one additional information source also including that feature; and
utilizing the association to display information from the additional information source
based at least in part on a selection by a user of the feature in the first video segment.

10 2. The method of claim 1 wherein the determining step further includes the step of retrieving
the association from a memory.

3. The method of claim 1 wherein the determining step further includes determining the
association from information in a portion of the video segment.

15 4. The method of claim 1 wherein the additional information source comprises an additional
video segment also including the feature.

20 5. The method of claim 4 wherein the utilizing step includes switching from display of the
first video segment to display of the additional video segment also including the feature.

6. The method of claim 4 wherein the utilizing step includes displaying the additional video segment at least in part in a separate portion of a display which also includes at least a portion of the first video segment.

5 7. The method of claim 1 wherein the feature is a video feature extracted from at least one frame of the video segment.

8. The method of claim 7 wherein the video feature comprises at least one of a frame characterization, a face identification, a scene identification, an event identification, and an object identification.

9. The method of claim 1 wherein the feature is an audio feature extracted from at least one frame of the video segment.

10. The method of claim 9 wherein the utilizing step includes combining an audio signal corresponding to the audio feature with an audio signal associated with the first video segment, or transcribed in a textual format and displayed along with the video segment. .

11. The method of claim 9 wherein the utilizing step includes converting an audio signal corresponding to the audio feature into a textual format which is displayed with the first video segment.

12. The method of claim 9 further including separating at least a portion of the video segment into audio categories including one or more of single-voice speech, multiple-voice speech, music, silence and noise in order to extract the audio feature therefrom.

13. The method of claim 9 wherein the audio feature comprises at least one of a music signature extraction, a speaker identification, and a transcript extraction.

14. The method of claim 1 wherein the feature is a textual feature extracted from at least one frame of the video segment.

15. The method of claim 14 wherein the utilizing step includes displaying information corresponding to the textual information as an overlay on a display of the first video segment.

16. The method of claim 1 wherein the determining step further includes determining the association based at least in part on at least one multi-dimensional feature vector extracted from a portion of the video segment using a feature extraction technique.

17. The method of claim 1 wherein the determining step further includes determining the association based at least in part on at least one of a similarity measure and a clustering technique.

Sub A2

18. An apparatus for processing video, the apparatus comprising:

a memory for storing an association between a first video segment including a particular feature and at least one additional information source also including that feature; and

a processor coupled to the memory and operative to utilize the association to direct the display of information from the additional information source based at least in part on a selection by a user of the feature in the first video segment.

19. An apparatus for processing video, the apparatus comprising:

a processor operative (i) to determine an association between a first video segment including a particular feature and at least one additional information source also including that feature; and (ii) to utilize the association to display information from the additional information source based at least in part on a selection by a user of the feature in the first video segment.

20. An article of manufacture comprising a machine-readable medium containing one or more software programs which when executed implement the steps of:

determining an association between a first video segment including a particular feature and at least one additional information source also including that feature; and

utilizing the association to display information from the additional information source based at least in part on a selection by a user of the feature in the first video segment.

21. A method for processing video, the method comprising the steps of:

determining from information in a portion of a first video segment an association between a particular feature of the first video segment and at least one additional information source also including that feature; and

utilizing the association to display information from the additional information source.

5

22. An apparatus for processing video, the apparatus comprising:

a processor operative (i) to determine from information in a portion of a first video segment an association between a particular feature of the first video segment and at least one additional information source also including that feature; and (ii) to utilize the association to display information from the additional information source.

10

23. An article of manufacture comprising a machine-readable medium containing one or more software programs which when executed implement the steps of:

determining from information in a portion of a first video segment an association between a particular feature of the first video segment and at least one additional information source also including that feature; and

15

utilizing the association to display information from the additional information source.